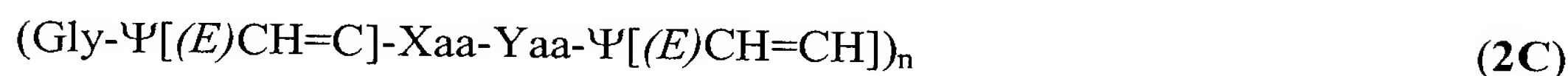
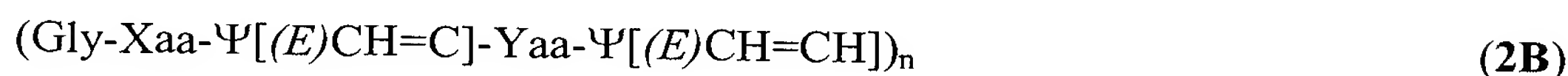
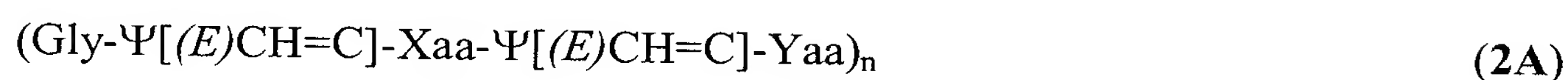
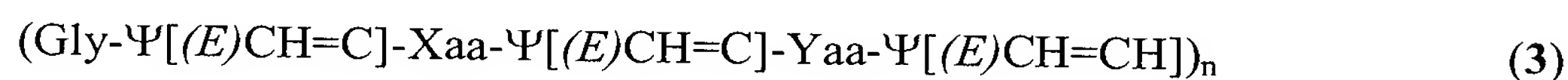


## CLAIMS:

1. (original) A polymeric material which comprises at least one peptidomimetic selected from the group consisting of:



and



wherein Xaa and Yaa may be the same or different and represent a natural amino acid, Hyp or Flp;

n means an integer.

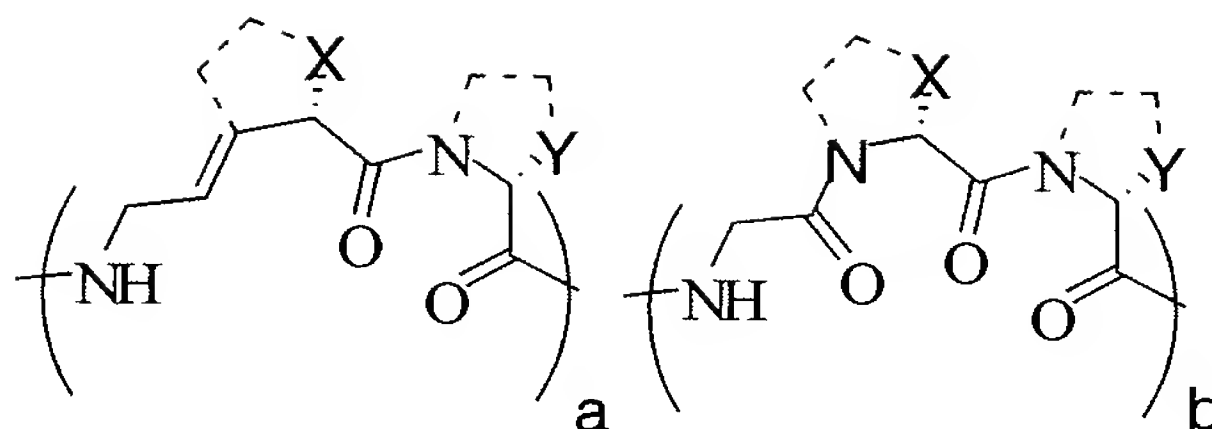
2. (original) The polymeric material of claim 1, wherein n is 10 or more.

3. (original) The polymeric material of claim 1, wherein the peptidomimetic comprises:



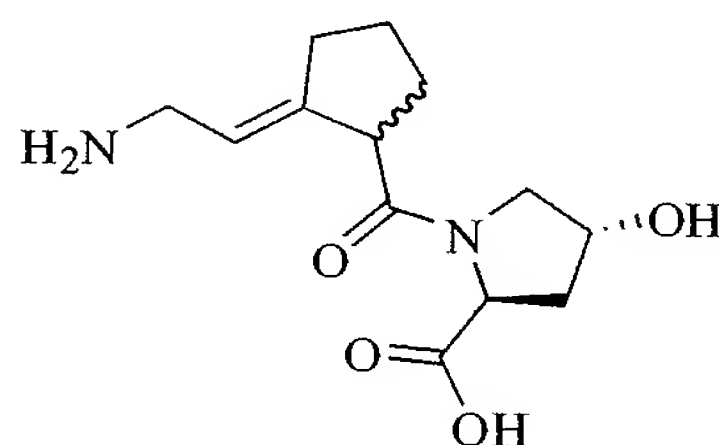
wherein Xaa is Pro and Yaa is Hyp.

4. (original) The polymeric material of claim 1, comprising a block polymer as follows:



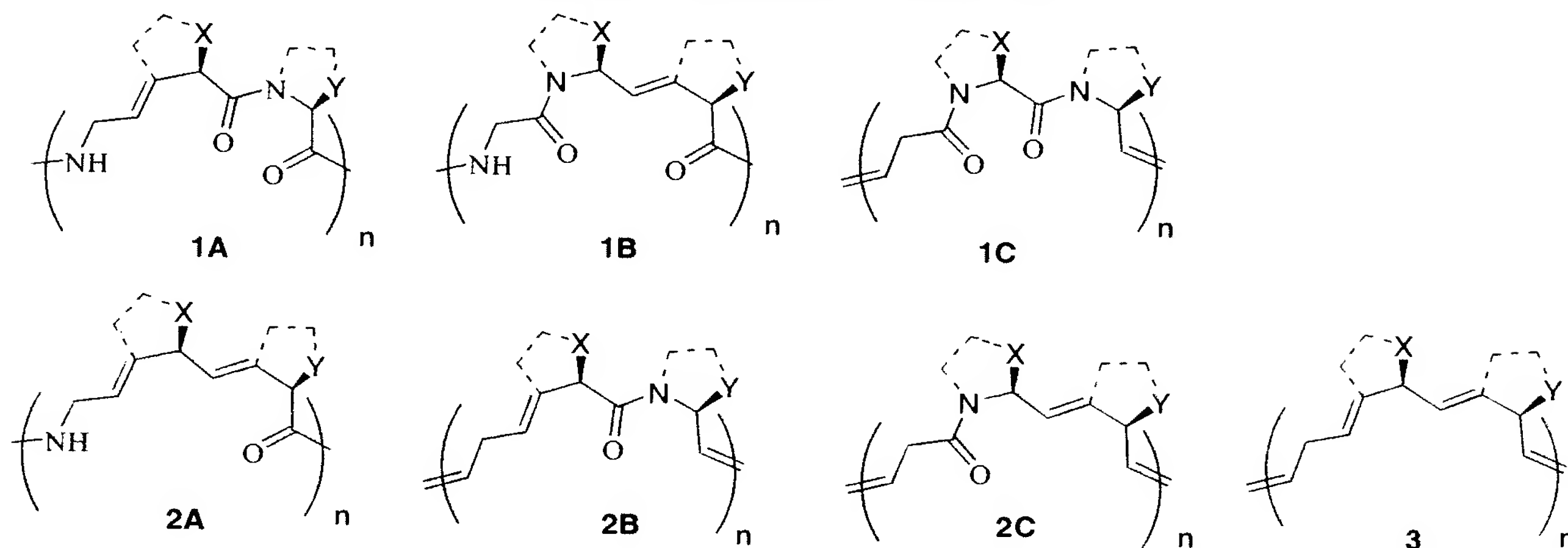
wherein a and b are integers between about 5 and 125, wherein a and b may be the same or different.

5. (original) The polymeric material of claim 1, comprising a block copolymer of a peptidomimetic with a natural peptide.
6. (original) The polymeric material of claim 1, comprising a monomer as follows:



7. (original) The polymeric material of claim 1, the polymeric material mimicking collagen.
8. (original) The polymeric material of claim 7, wherein the polymeric material is biocompatible and upon insertion into a region in a living patient where collagen at a previous time had been disposed, the inserted polymeric material provides at least one property of natural collagen.
9. (original) A product comprising a polymeric material which is not naturally occurring, comprises alkene bonding and has a triple helix rope-like structure.

10. (original) The product of claim 9, wherein the polymeric material comprises at least one selected from the group consisting of:



wherein n means an integer.

11. (original) The product of claim 10, wherein n is 10 or more.
12. (original) The product of claim 10, wherein the polymeric material has one or more selected from the group consisting of: greater stability than natural collagen, and greater collagenase-resistance than natural collagen; greater ability to fold than natural collagen.
13. (original) The product of claim 10, implanted or injected into a living organism.
14. (original) The product of claim 10, having biology purity suitable for use in a living human patient.
15. (original) The product of claim 10, not capable of producing a problematic immunologic reaction when injected into living human patients.

16. (currently amended) A method of tissue replacement in a living organism, comprising: delivering into the living organism the product of claim 1 ~~or claim 10~~.
17. (currently amended) A method of hip replacement, comprising: disposing in a living organism the product of claim 1 ~~or claim 10~~.
18. (currently amended) A biocompatible adhesive formed by the product of claim 1 ~~or claim 10~~.
19. (currently amended) A method of biomineralization, comprising delivering into a living organism the product of claim 1 ~~or claim 10~~.
20. (currently amended) A method of drug delivery, comprising: disposing in a living organism the product of claim 1 ~~or claim 10~~ wherein the product comprises a drug.
21. (original) A method of synthesizing collagen-like peptides, comprising polymerization of a H-Gly- $\Psi[(E)CH=C]$ -Pro-Hyp-OH monomer.
22. (original) The synthesis method of claim 21, including polymerizing tripeptide units.
23. (original) The synthesis method of claim 21, wherein a (Gly-Pro-Hyp)<sub>t</sub> polymer is synthesized wherein t is a number of repeating units of about 10 to 160.
24. (original) The synthesis method of claim 21, wherein a polymer comprising (Gly-Pro-Hyp) repeating units and having molecular weight of about 40,000 is synthesized.

-25. (original) The polymeric material of claim 1, wherein the peptidomimetic comprises:



wherein Xaa is Pro and Yaa is Pro.